

REMARKS

Blooming is an art-recognized aesthetic defect afflicting certain thermoplastic polyurethane resins (herein TPU). These resins include ones that are derived from

(i) a polyol selected from a group that includes polybutylene adipate polyol and polyether polyol and polycarbonate polyol

(ii) a chain extender selected from among diols and diamines, and

(iii) an organic diisocyanate.

Directed to a method for making these TPU bloom-free, the invention resides in the finding that the defect is avoided by melt blending with such TPU an effective amount of a specifically defined chain terminator. Chain terminators found thus useful form a group that includes monofunctional alkylene alcohol having at least 14 carbon atoms and mono-isocyanates.

Claims 1-12 stand rejected under 35 U.S.C. 102(b) said to be anticipated by Werner (DE3131760).

Werner disclosed a procedure for improving the flowability of TPU. The procedure entails treating TPU with alcohols, monoamines and/or diamines. The treatment is carried out in the melt under specified shear conditions and for a prescribed length of time. The procedure thus disclosed is apparently effective for virtually any and all TPU, and the suitable alcohols are alkanols with 1 to 30, preferably 10 to 18 carbon atoms. The treatment, the lowering of the viscosity can be implemented during the assembling of the TPU or during the processing into molded parts – see page 12, second full paragraph, of the enclosed translation of the Werner reference.

Elements of the instant invention are included in the Werner document. Raw materials for the preparation of virtually any TPU have thus been disclosed, as having a great many compounds suitable for the disclosed treatment, including alcohols, monoamines and diamines. The treatment may be effected either during the preparation of the TPU or its processing. Moreover, Werner is noted in its complete silence relative to "blooming", the crux of the instant invention.

The standard for anticipation is one of strict identity. To anticipate, every element and limitation of the claimed invention must be found in a single prior art reference, arranged as in the claim.

Mo-6366

- 4 -

Brown v. 3M, 60 USPQ2d 1375 (Fed. Cir. 2001). Moreover "the reference ... must clearly and unequivocally disclose the claimed compound or direct those skilled in the art to the compound without any need for picking, choosing, and combining various disclosures not directly related to each other by the teachings of the cited reference."); *In re Arkley*, 172 USPQ 524 (CCPA 1972).

Set against the stated standard, the rejection sounding in anticipation is clearly untenable and its withdrawal is respectfully urged.

Claim 13 stands rejected under 35 U.S.C. 103(a) said to be unpatentable over Werner.


Claim 13 is directed to an embodiment of the invention wherein the TPU resin is based on polybutylene adipate.

Werner relates to lowered flowability of TPU and is completely silent relative to blooming and to bloom-free TPU. It is not at all clear how or why one seeking a solution to a blooming problem might expect to, or indeed find the answer in Werner. Applicants respectfully submit that Werner falls short of the prime facie case and the rejection of the claim under section 103 is untenable. Retraction of the rejection is requested.

Believing the above represent a complete response to the Office Action and that the application is in condition for allowance, applicants request the earliest issuance of an indication to this effect.

Respectfully submitted,

By


Aron Preis
Attorney for Applicants
Reg. No. 29,426

RECEIVED
CENTRAL FAX CENTER

OCT 10 2003

Bayer Polymers LLC
100 Bayer Road
Pittsburgh, Pennsylvania 15205-9741
PHONE: (412) 777-3814
FACSIMILE PHONE NUMBER:
412-777-3902
s/rmc/ap/0183

OFFICIAL

Mo-6366

- 5 -